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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,098	05/22/2001	Michael D. Holder	543-00-009	9007

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EXAMINER

BLOUNT, STEVEN

ART UNIT PAPER NUMBER

2661

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/863,098

Applicant(s)

HOLDER ET AL.

Examiner

Steven Blount

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9 – 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 9, line 5, "said second node" lacks antecedent basis.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2 – 6, 9 – 10, 14 – 15, 36, and 38 – 42 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 5,530,909 to Simon et al.

With regard to claim 1, Simon et al teaches a communication network which transfers information between source STA and destination STB (figure 1) utilizing a router (figure 2, see also col 3 lines 35+) located in an aircraft, using VHF (col 2 lines 48+).

With regard to claims 2 – 5, note transmitting and receiving stations STA and STB, and also that the aircraft hand off the messages between each other.

With regard to claim 6, see col 2 line 61 (data).

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With regard to claim 9, note that the message is modified in col 3, lines 40+.

Note also the use of an acknowledgement message in col 3 lines 65+.

With regard to claims 10 and 15, VHF is mentioned in col 2, line 47.

With regard to claim 14, see the rejection of claims 1 and 9 above.

With regard to claim 36, see the router mentioned in col 6 lines 10+.

With regard to claim 29, the signal processing device is a router.

With regard to claim 38, note that the source node is the aircraft discussed

above, as is the destination node as also shown above, wherein a packet is transmitted amongst a plurality of aircraft as shown in figure 1 and described in the aircraft.

With regard to claim 39 - 40, see the discussion of aircraft above.

With regard to claim 41, note transmitting and receiving stations STA and STB, as discussed above.

With regard to claim 42, VHF is mentioned in col 2, line 47.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 21, 27, 28, 29, 31, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,530,909 to Simon et al.

With regard to claims 21, 29, and 31, note the rejection of claims 1 and 9 above, and note that devices such as the database mentioned in col 4, lines 4+ operate under the influence of software.

With regard to claim 27, see col 3 line 15 and note that one of ordinary skill in the art would find the use of memory in this signal processing device to be obvious.

With regard to claims 28 and 35, a general purpose computer would be obvious to use in order to allow for the possibility to modify the program.

With regard to claim 34, note that the acknowledgement message is taught in col 3 lines 66+, and that while it is not explicitly stated that the acknowledgment message is to "include(ing) said data about said aircraft", it is stated that the connection gets set up in col 4 lines 10+, wherein one of ordinary skill in the art would recognize that to set up the connection it would be desirable to include this information.

7. Claims 7, 8, 12 – 13, 18 – 19, and 11, 16, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,530,909 to Simon et al as applied to claims 1, 9, and 38, and further in view of U.S. patent 6,285,878 to Lai.

With regard to claims 7 – 8, 12 – 13, and 18 – 19 Simon et al teach the invention as described above, but do not teach transmitting voice data over broadband. This is taught in Lai, which teaches a fleet of aircraft which act as airborne repeaters. See the abstract. It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided Simon et al with the capability of transmitting voice data, including over a broadband connection, in light of the teachings of Lai, in order to provide a means for carrying conversations between two end users without the

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need for having a wired connecting medium between them, and also wherein the communication can be carried over great distances in a flexible manner.

With regard to claims 11, 16, and 43, note that Lai teaches carrying the information of UHF in col 6 lines 15+.

8. Claims 17, 20, 22 – 26, 30, 32 – 34, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,530,909 to Simon et al in view of U.S. patent 6,445,308 to Koike.

Simon et al teach the invention as described above, but do not teach predicting a future position of the aircraft and source node and determining if the communication can be maintained for a predefined time interval. This is taught in Koike. See the abstract, an col 2 lines 1+. It would have been obvious to one of ordinary skill in the art at the time of the invention to have predicted the future position of the aircraft and source node of Simon et al and determined if the communication can maintained for a predefined time interval in light of the teachings of Koike in order to provide a more effective means for routing the data. Note that with regard to claims 22 – 26, it would be obvious to implement this process in software.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Blount whose telephone number is 571-272-3071. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chau Nguyen, can be reached on 571-272-3126. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB  
  
2/22/05

  
Ajit Patel  
Primary Examiner